Safe Travel with Batteries and Devices

Traveling with Special Items

As of January 1, 2008, the Department of Transportation (DOT) through the Pipeline and Hazardous Materials Safety Administration (PHMSA) no longer allows **loose** lithium batteries in checked baggage.

Learn more at http://safetravel.dot.gov/whats_new_batteries.html [1].

Tips For Safe Travel with Batteries

-  Keep batteries and equipment with you, or in carry-on baggage - not in your checked baggage! In the cabin, flight crew can better monitor conditions, and have access to the batteries or device if a fire does occur.

- Buy batteries from reputable sources and only use batteries approved for your device – avoid counterfeits! A counterfeit battery is more likely to cause a fire in your equipment – costing you more in the long run, and compromising safety.

- Look for the mark of an independent testing or standards organization, such as Underwriters Laboratories (UL) or International Electrotechnical Commission (IEC).

- Do not carry recalled or damaged batteries on aircraft. Check battery recall information at the manufacturer's website, or at the Consumer Product Safety Commission [2].

- Only charge batteries which you are sure are rechargeable! Non-rechargeable batteries are not designed for recharging, and become hazardous if placed in a battery charger. A non-rechargeable battery placed in a charger may overheat or cause damage later.

- Only use a charger compatible with your rechargeable battery – don’t mix and match!

- If original packaging is not available for spare batteries, effectively insulate battery terminals by isolating the batteries from contact with other batteries and metal. Do not permit a loose battery to come in contact with metal objects, such as coins, keys, or jewelry.

- Place each battery in its own protective case, plastic bag, or package, or place tape across the battery's contacts to isolate terminals. Isolating terminals prevents short-circuiting.

- Take steps to prevent crushing, puncturing, or putting a high degree of pressure on the battery, as this can cause an internal short-circuit, resulting in overheating.

- If you must carry a battery-powered device in any baggage, package it to prevent inadvertent activation. For instance, you should pack a cordless power tool in a protective case, with a trigger lock engaged. If there is an on-off switch or a safety switch, tape it in the "off" position.

Lithium Batteries: Safety and Security

Lithium-ion batteries, often found in laptop computers, differ from primary lithium batteries, which are often used in cameras. Some newer AA-size batteries are also primary lithium.

While there is no explosion hazard associated with either kind of battery, the Federal Aviation Administration has studied fire hazards associated with both primary and lithium-ion cells, and their extensive research is publicly available. As a result of this research, the FAA no longer allows large, palletized shipments of these batteries to be transported as cargo on passenger aircraft.

The research also shows that an explosion will not result from shorting or damaging either lithium-ion or primary lithium batteries. Both are, however, extremely flammable. Primary lithium batteries cannot be extinguished with firefighting agents normally carried on aircraft, whereas lithium-ion batteries are easily extinguished by most common extinguishing agents, including those carried on board commercial aircraft.

TSA has and will continue to work closely with the FAA on potential aviation safety and security issues, and TSA security officers are thoroughly and continually trained to find explosive threats. TSA does not have plans to change security regulations for electronic devices powered by lithium batteries.

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Links[1] http://safetravel.dot.gov/whats_new_batteries.html
[2] http://www.cpsc.gov/

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